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ABSTRACT

The study examined emotional-motivational personality characteristics of 15 learning disabled, 15 normal achieving, and 15 high achieving students (grades 3-5). The study tested the hypothesis derived from the A-R-D (attitude-reinforcer-discriminative) theory of motivation that learning disabled (LD) children differ from normal and high achieving children in an emotional motivational personality characteristic that would, in terms of the theory's basic principles, help to explain their relatively poor school learning and performance. The personality characteristic--attitude toward school stimuli--was measured using a questionnaire composed of 12 school- and 12 play-related words. As predicted, repeated measures analysis of variance results and the results of a Newman-Keuls followup test indicated that the LD Ss expressed a significantly different, i.e., less positive, attitude toward the school words than either the normal or high achieving children, while no differences were found among the groups in attitude expressed towards words that were play-related. (Author/CL)

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A Comparison of Emotional-Motivational (A-R-D Theory) Personality Characteristics in Learning Disabled, Normal Achieving, and High Achieving Children*

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ABSTRACT

This study examined emotional-motivational personality characteristics of 15 learning disabled, 15 normal achieving, and 15 high achieving school children. Tested in the study was the hypothesis, derived from Staats' (1975) attitude-reinforcer-discriminative (A-R-D) theory of motivation, that learning disabled children differ from normal and high achieving children in an emotional-motivational personality characteristic that would, in terms of the theory's basic principles, help to explain their relatively poor school learning and performance. The personality characteristic--attitude toward school stimuli--was measured using a questionnaire composed of 12 school- and 12 play-related words. As predicted, repeated measures analysis of variance results and the results of a Newman-Keuls follow-up test indicated that the learning disabled children expressed a significantly different, i.e., less positive, attitude toward the school words than either the normal or high achieving children, while no differences were found among the groups in attitude expressed toward the words that were play-related. Implications of the findings and directions for future research were discussed.

A Comparison of Emotional-Motivational
(A-R-D Theory) Personality Characteristics in Learning
Disabled, Normal Achieving, and High Achieving Children

The study reported here concerns an application of Staats' (1975) attitude-reinforcer-discriminative (A-R-D) theory of motivation to the problem of children's learning disabilities. The theory suggests that understanding a child's emotional-motivational personality characteristics is central to understanding what in a situation will reinforce the child's behavior (and thus, what he or she will learn), as well as what in a situation will function to direct how the child behaves.

How a child acquires his or her emotional-motivational personality characteristics is also stipulated by the theory. In accord with the theory, a child acquires his or her emotional-motivational personality characteristics, also called A-R-D system, primarily through learning. That children differ in the responses they have to different kinds of stimuli, e.g., food, social, school, play, is explained in terms of the different kinds of conditioning experiences that different children have.

Further specified by the theory is the manner by which a child's A-R-D system functions. According to the theory, stimuli which elicit a positive emotional (or attitudinal) response in a child will act as reinforcers for the child, strengthening the behaviors they follow, while stimuli which elicit a negative response in a child can be expected to have the opposite effect. Additionally, the theory suggests that stimuli which elicit an emotional response in a child can serve a directive function: if a stimulus elicits a positive emotional response, it can be expected to direct the child's approach behaviors; if it elicits a negative response, it can be expected to direct the child's

avoidance behaviors.

That few studies have attempted to investigate the role of motivation in learning disabilities has been discussed by a number of investigators (cf. Adelman & Taylor, 1983). In addition, although few investigators would argue against a relationship between motivation and the academic learning or classroom performance of learning disabled children, theoretical analyses and research indicating the nature of this relationship have not been sufficiently explicit.

It is suggested that A-R-D theory provides a sufficient basis for conducting research in this area in that it comprehensively and explicitly indicates (1) the importance of determining the nature of a child's emotional-motivational characteristics, (2) how these characteristics are acquired, (3) the manner by which they function to determine how the child will behave, and (4) why two children will behave differently in exactly the same situation because one child will find the stimuli in the situation reinforcing while the other one will not.

Based on the literature which indicates that rewards can be effective in improving the learning of learning disabled children on academic tasks (cf. Douglas, 1972), and on the literature which shows that learning disabled children attend better to stimuli that investigators label "interesting" than to typical classroom activities (cf. Krupski, Note 1), the principles underlying A-R-D theory were used as a basis for proposing the following hypotheses: (1) learning disabled children differ from normal and high achieving children in their emotional (attitudinal) response to school stimuli, with learning disabled children having a less positive attitude; (2) learning disabled children do not differ from normal and high achieving children in their

emotional (attitudinal) response to stimuli that are play-related; and (3) the relatively greater need evidenced by learning disabled children for rewards in order to perform well on academic learning tasks and their "better" attention to interesting versus typical classroom activities may, in large part, be explained in terms of their emotional-motivational personality characteristics, in specific, their lack of positive emotional (attitudinal) responses to school stimuli.

Reported here are the results of a study which tested the first two hypotheses.

METHOD

Procedures

In order to investigate the study's hypotheses, an attitude questionnaire was developed and validated in a series of pilot investigations (Hufano & Kravetz, Note 2). The questionnaire was composed of 12 school-related words (e.g., book, learn, spell, read) to measure emotional (attitudinal) response to school stimuli, and 12 play-related words (e.g., play, run, bike, park) to measure attitudinal response to play stimuli. Alongside each of the 24 words were pictures of five faces drawn to express the following emotions: very happy, a little happy, not happy or unhappy, a little unhappy, and very unhappy.

Children were given the questionnaire individually by the experimenter. Directions for responding to the questionnaire and each stimulus word were read aloud. Children were told to indicate how each of the words make them feel by marking an "X" on the face best representing their feelings. Total administration time was approximately 10 minutes.

For scoring purposes each of the five faces was assigned a point value ranging from 5 points for the very happy face to 1 point for the very unhappy face (5-point Likert format). A child's total rating score on the play word

set was obtained by summing the child's individual Likert-scale ratings over each of the 12 play-related words; a total rating score on the school word set was obtained by summing the child's ratings over each of the 12 school-related words.

Sample

The sample was composed of 15 learning disabled, 15 normal achieving, and 15 high achieving children in the third, fourth, and fifth grades of a large metropolitan school district in Southern California. Children selected for the learning disabled group had to have been identified as learning disabled by the school assessment team and meet the following additional criteria: (1) normal intelligence according to the case study report, (2) current academic functioning in reading and math at least 1½ years below grade level, as indicated by individually-administered achievement tests and according to teacher estimates, (3) no gross signs of brain damage, (4) no serious sensory defect, and (5) no evidence that underachievement was secondary to some other handicapping condition (e.g., emotional disturbance, mental retardation, bilingualism, or environmental disadvantage).

Children selected into the normal and high achieving groups were first identified by their teachers. For the normal achieving group, teachers were asked to identify children achieving at or very close to grade level expectancy, i.e., $\pm$ 3 months, in reading and math. For the high achieving group, teachers were asked to identify children achieving at least 1½ years above grade level expectancy in reading and math. Inasmuch as the learning disabled group was composed of significantly more boys than girls, a stratified random sampling procedure was employed to control for sex differences when assigning children to the normal or high achieving groups.

RESULTS

The means and standard deviations for total rating scores are presented in Table 1 according to Classification Group (learning disabled, normal achieving, and high achieving) and Word Set (12 school-related words, 12 play-related words).

In accord with the design of the study, total rating scores were analyzed using a 3 X 2 (Classification Group by Word Set) analysis of variance with repeated measures on the last factor. Significant differences were found for the main effect of Word Set, F (1,42) = 18.48, $p < .001$, and for the Word Set by Classification Group interaction, F (2,42) = 3.24, $p < .05$. The main effect for Classification Group was not found to be significant, F (2,42) = 2.34, $p > .05$.

In view of the significant interaction, the significant main effect for Word Set was not analyzed further. The significant interaction indicated that at least two of the groups responded differentially to the two types of words. In order to determine which of the classification groups responded differentially, F-tests for simple main effects were used to analyze the Word Set by Classification Group interaction. Results indicated that while the classification groups did not significantly differ in their overall rating of the 12 play-related words (F (2,42) = 0.19, $p > .05$), at least two of the groups did differ significantly in their overall rating of the 12 school-related words (F (2,42) = 3.93, $p < .05$). A Newman-Keuls follow-up test applied to the means for the school word set revealed that the total rating score mean was significantly lower, and therefore less positive, for the learning disabled group than for the normal or high achieving groups ($p < .05$, in both cases), while the means for the latter two groups were not significantly different from one another ($p > .05$).

Table 1

Means and Standard Deviations for Total Rating Scores

Classification Group	School Word Set	Play Word Set	Total
Learning Disabled (LD)			
M	41.8	52.4	47.10
SD	10.08	4.85	7.47
n	15	15	15
Normal Achieving (NA)			
M	48.33	53.13	50.73
SD	6.99	5.54	6.26
n	15	15	15
High Achieving (HA)			
M	49.60	51.87	50.73
SD	7.08	6.39	6.73
n	15	15	15
Total			
M	46.58	52.47	49.52
SD	8.05	5.59	6.82
n	45	45	45

DISCUSSION

The results support the hypothesis that learning disabled children do not differ from normal and high achieving children in their emotional (attitudinal) response to play-related stimuli. More importantly, however, the results also provide evidence in support of the hypothesis that learning disabled children differ from normal and high achieving children in an emotional-motivational personality characteristic--namely, attitude toward school--that, on the basis of the principles which underlie A-R-D theory, would be expected to have a profound affect on school learning and performance. To be specific, the implications of the finding that learning disabled children respond less positively to school-related stimuli than do normal or high achieving children are that (1) school stimuli (e.g., grades, teacher approval, task completion) would be less likely to reinforce the behaviors of learning disabled children than those of normal or high achieving children, and (2) school stimuli (e.g., academic tasks, books, grades) would be less likely to direct the approach behaviors (e.g., attending, studying, reading) of learning disabled children than of normal or high achieving children.

While the latter relationships will, of course, require extensive and controlled experimental verification, it is suggested that the results of the present investigation provide the foundation for a continuing investigation along these lines, and also constitute an important effort toward understanding a significant emotional-motivational personality characteristic of learning disabled children.

REFERENCE NOTES

1. Krupski, A. Variations in attention as a function of classroom task demands. Paper presented at the annual meeting of the American Psychological Association, Los Angeles, 1981.

2. Hufano, L. D. & Kravetz, R. J. Differences in attitude toward school learning among learning disability, behavior disorder, and normal achieving inner-city pupils. Paper presented at the annual meeting of the California State Federation Council for Exceptional Children, San Diego, 1981.

REFERENCES

Adelman, H. & Taylor, L. Learning disabilities in perspective. Glenview, Illinois: Scott, Foresman and Company, 1983.

Douglas, V. I. Stop, look and listen: The problem of impulse control in hyperactive and normal children. Canadian Journal of Behavioral Science, 1972, 4, 259-282.

Staats, A. W. Social behaviorism. Homewood, Illinois: Dorsey Press, 1975.